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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/931,580	08/17/2001	Jonas Ohlsson	2380-443	2212

7590 05/19/2004

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EXAMINER

LE, DANH C

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/931,580

Applicant(s)

OHLSSON ET AL.

Examiner

DANH C LE

Art Unit

2683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 is/are allowed.
- 6) ☒ Claim(s) 11,15-17,20 and 21 is/are rejected.
- 7) ☒ Claim(s) 12-14,18 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>4,5</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 11, 15-17, 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Veeravalli (US 6,167,035) in view of Blasiak (US 6,108,538).

As to claim 11, Veeravalli teaches a telecommunications system (figure 1 and 3) comprising:

a source base station',

a destination base station;

soft handoff regions in a cell being a function of a probability that the specified mobile station will engage in soft handover (col.8, line 66-col.9, line 21).

Veeravalli fails to teach a dynamic offset threshold determination unit which determines a dynamic offset threshold for starting at least a portion of a soft handover

sequence for the specified mobile station at the destination base station, the dynamic offset threshold being a function of a probability. Blasiak teaches a dynamic offset threshold determination unit which determines a dynamic offset threshold for starting at least a portion of a soft handover sequence for the specified mobile station at the destination base station, the dynamic offset threshold being a function of a probability

(col.11, lines 26-47). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Blasiak into the system of Veeravalli in order to optimize the soft handover process.

As to claim 15, the combination of Veeravalli and Blasiak teaches the apparatus of claim 11, wherein the probability is a function of signal strength of the destination base station as received at the specified mobile station (Blasiak, col.9, lines 42-55).

As to claim 16, the combine of Veeravalli and Blasiak teaches the apparatus of claim 11, wherein the probability is a function of signal strength of the destination base station as received at the specified mobile station and a function of signal strength of the source base station as received at the specified mobile station (Blasiak, col.9, lines 42-55).

As to claim 17, the combination of Veeravalli and Blasiak teaches the apparatus of claim 11, wherein the probability is a statistical probability based on handover history of other mobile stations (Veeravalli, col.5, line 66-col.6, line 13).

As to claim 20, the combination of Veeravalli and Blasiak teaches the apparatus of claim 11, wherein the dynamic offset threshold determination unit is situated at a control node of the code division multiple access communication system (Veeravalli, col.3, lines 14-25).

As to claim 21, the combination of Veeravalli and Blasiak teaches the apparatus of claim 21, the apparatus of claim 20, wherein control node receives from the specified mobile station a measurement report of the signal strength of the destination base

station as received at the specified mobile station (Veeravalli, col.1, line 53-col.2, line 5 and Blasiak, col.13, lines 59-67).

Allowable Subject Matter

2. The following is a statement of reasons for the indication of allowable subject matter:

Claims 1-10 are allowed.

As to claim 1, the teaching of Veeravalli and Blasiak either alone or in combine fails to teach initiating the at least a portion of the soft handover sequence when a signal strength from the destination base station as received at the specified mobile station has a predetermined relationship to the dynamic offset threshold.

Dependent claims 2-10 are allowable for the same reason.

Claims 12-14, 28-29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claim 12, the teaching of Veeravalli and Blasiak either alone or in combine fails to teach initiating the at least a portion of the soft handover sequence when a signal strength from the destination base station as received at the specified mobile station has a predetermined relationship to the dynamic offset threshold.

As to claims 13-14, the teaching of Veeravalli and Blasiak either alone or in combine fails to teach initiating another portion of the soft handover sequence when a signal strength from the destination base station as received at the specified mobile station has a predetermined relationship to the dynamic offset threshold.

As to claims 18-19, the teaching of Veeravalli and Blasiak either alone or in combine fails to teach the dynamic offset threshold determination unit initiates the at least a portion of the soft handover sequence when a signal strength from the destination base station as received at the specified mobile station is not less than the dynamic offset threshold, the dynamic offset threshold being a difference between the signal strength of the source base station as received at the specified mobile station and a dynamic offset.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A. Ohsson et al (US 2002/0068566) teaches the preliminary performance of handover function in telecommunication system.

B. Shi (US 6,507,740) teaches the adaptive threshold of handoff in mobile telecommunication systems.

C. Agrawal et al (US 2003/0142647) teaches the discreet soft handoff in CDMA wireless networks.



D. Sexton et al (US 6,349,208) teaches the apparatus and associated method for selectively permitting initiation or cell reselection in a radio communication system.

E. Kumar et al (US 6,073,021) teaches the Robust CDMA soft handoff.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANH C LE whose telephone number is 703-306-0542. The examiner can normally be reached on 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM TROST can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Danh C. Le
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